

# The PLANATOL

## “KF LE” series

Planatol adhesives for film lamination  
- the ideal bond between film and printed product.



We'll be happy to help

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Planatol assumes no responsibility for the topicality, correctness and completeness of the information provided or for deviating production results. All information on our adhesives result from customary industrial and internal tests. Results may deviate when using other adhesives, machines and materials.

Dispersion adhesives for

**PRINT ENHANCEMENT**

**PLANATOL**<sup>®</sup>  
smart gluing

# Excerpt: Adhesives for film lamination

## PLANATOL KF 350 LE

- Basis
- APEO-free
- Multiple applications
- Economical
- Can be used as one-component or two-component system

## PLANATOL KF 450 LE

- Allround adhesive for all customary lamination systems
- Good initial adhesion
- Low particle formation
- High shearing stability
- Can be used as one-component or two-component system

## PLANATOL KF 650 LE

- Excellent gloss level
- Very good grooving and embossing properties
- Optimised drying, also suitable for roller lamination machines
- Can be used as one-component or two-component system

## PLANATOL KF 500 LE

- Special adhesive for laminating pre-treated OPP, PET, PA and acetate films
- Very good initial adhesion
- Many applications
- One-component system

This is an excerpt of our extensive product portfolio; we will be happy to assist you personally and individually to find the most suitable adhesive for you and your application.

# The benefits of PLANATOL adhesives

- ✓ Optimised product family
- ✓ Use in indirect contact with foodstuffs
- ✓ For extreme stress
- ✓ For use with special films
- ✓ Good embossing and grooving properties
- ✓ Excellent processing characteristics
- ✓ Very good adhesive properties
- ✓ Quick and simple further processing
- ✓ For all customary machine types

### Suitable for use with foodstuffs

The adhesives shown here conform to the requirements of foodstuff regulations, which may be confirmed upon request.

### For an even better performance

Cross-linked KF 5 VLE - contains poly-functional isocyanate to improve grooving and embossing properties. Maximum addition 3 %, suitable for dosing systems

## The dry lamination procedure

Dry lamination means that the liquid dispersion adhesive is processed with a counter-rotating roller with blade. The laminating roller is heated to a temperature of 50 - 80 °C, the applied adhesive is hence dried and subsequently laminated onto the paper sheets or webs under high pressure and at machine speeds of between 20 and 90 m/min. (approx. 12 - 24 g/m<sup>2</sup> wet adhesive application on film corresponds to approx. 6 - 12 g/m<sup>2</sup> dry adhesive application). Customary laminators such as Ecosystem, Billhöfer, Pickel and Papierplast. Prior to processing, a rest period of 24, however at least 12 hours should be observed to achieve sufficient strength of the adhesive bond. Apart from the adhesive, the waiting time is primarily influenced by the quality of the material to be glued and the complexity level of further processing (embossing, grooving, etc.), and may be reduced by the addition of reactive hardeners, among other things. The addition of an amount of up to 3 % of Planatol KF 5 V is necessary if high strength is requested on difficult printing colours; if difficult to glue films (surface tension!) or very stiff films

with a high mass per unit area are used; or if special grooves or embossing are intended. The hardener must be mixed very homogeneously in the dispersion. As it reacts with water, the hardener becomes depleted over time as urea derivatives are formed. This results in a useful maximum pot life of 8 hours, or 4 hours under unfavourable conditions. In particular if the hardener is not distributed homogeneously, it can precipitate and thus lead to an undesirable deposit. The processed standard foil is OPP, Corona pre-treated, with a surface tension of at least 38 mN/m at the time of processing. Acetate, PET, polyester, as well as acrylic-coated OPP films are also made (comparatively limited) use of. Processing these films is generally only promising with added hardener. If polyester films are used, additional glueing tests are required before production.

